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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,797	01/13/2004	Michael D.G. Steigerwald	FRM-04201	1531
26339	7590	12/20/2005	EXAMINER	
MUIRHEAD AND SATURNELLI, LLC			VANORE, DAVID A	
200 FRIBERG PARKWAY, SUITE 1001			ART UNIT	
WESTBOROUGH, MA 01581			PAPER NUMBER	

2881

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/756,797

Applicant(s)

STEIGERWALD ET AL.

Examiner

David A. Vanore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 1-37 and 41-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-40, 44 and 45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08, 10/04; 11/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statements (IDS) submitted on August 09, 2004, October 04, 2004, and November 16, 2005 are being considered by the examiner.

### ***Election/Restrictions***

2. Applicant's election without traverse of Species V, or the species corresponding to that which is illustrated in the reply filed on November 16, 2005 is acknowledged.
3. Claims 1-37 and 41-43 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 16, 2005.
4. Applicant has set forth in the election that claims 1, 5-14, 16-19, 23-27, 38-40, and 43-45 correspond to Species V, the species illustrated by Fig. 8 and supported at pages 15-16 of the specification.
5. There is no illustrated support, or description in relation to the species of Fig. 8 which sets forth that Species V comprises an adjustable diaphragm. The claims containing this limitation are therefore drawn to another, non-elected species and are therefore similarly withdrawn as being drawn to a non-elected species.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 38-40 and 44-45 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lee (USPN 4,933,552).
8. Lee teaches a method for detecting electron comprising generating an electron beam (Fig. 2 Item Primary Beam), focusing the electron beam on an object using a lens (Fig. 2 Item 12), detecting electrons emitted from or by the object using a detector (Fig. 2 Item 16), and selecting electrons according to energy (Note Col. 2-3 and Fig. 3-4 where Lee teaches that electrons are separated by virtue of their energies) as recited in claim 38.
9. Regarding claims 39-40, Lee teaches that the selected electrons comprise both secondary and backscattered electrons, where the secondary and backscattered electrons are separated and selected based on their energies (Col. 3 Lines 60-68 especially).
10. Regarding claim 44, Lee teaches the use of a lens (12 and 14) for directing a beam from, meaning along, and to, meaning focused towards, an optical axis. (Note Fig. 5A and 5B).
11. Regarding claim 45, Lee teaches at Col. 2-3 that the energy and angle of emission of secondary and backscattered electrons are used to select electrons. The angular emission difference results in a positional difference between backscattered and secondary electrons, when further influenced by the retarding field applied by the apparatus of Lee, discussed at Col. 2-3. Therefore, the use of the energy and positional

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difference to select electrons is the same as using the "phase space" of the electrons as criteria for selection as a phase space can be any multi-dimensional space of variables.


12.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Vanore whose telephone number is (571) 272-2483. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David A Vanore  
Patent Examiner  
Art Unit 2881

12/17/05

dav